27. A hypervelocity particle shield, comprising:

a plurality of spaced apart flexible shield layers, at least one of which is made of a flexible ceramic fabric;

a resilient support layer between adjacent ones of the flexible shield layers, the resilient support layer including at least one space qualified foam layer, wherein the at least one flexible shield layer has an areal density that is substantially equal to a predetermined constant times a hypervelocity particle's cubic density multiplied by its diameter;

at least one thermal insulation layer disposed on the plurality of flexible shield layers;

a vented, abrasion resistant protective cover configured to enclose the flexible shield layers and having an absorptivity to emissivity ratio selected to provide a predetermined level of thermal protection; and

fasteners attached to the protective cover and capable of releasably securing the flexible shield layers to a structure to be protected.

Please add the following new claim:

35. The particle shield of claim 1, wherein the protective cover is optically absorptive.

36. A particle shield, comprising:

a plurality of flexible shield layers;

a resilient support layer between adjacent ones of the flexible shield layers;

a protective cover configured to enclose the flexible shield layers;

a plurality of vent holes formed in a periphery of the protective cover; and

fasteners attached to the protective cover and capable of releasably securing the flexible shield layers to a structure to be protected.

37. A particle shield, comprising:

a plurality of flexible shield layers;

a resilient support layer between adjacent ones of the flexible shield layers;

a protective cover configured to enclose the flexible shield layers;